

REMARKS

Upon entry of this amendment, claims 5-11 are all the claims pending in the application. By this amendment, claims 1-4 have been canceled, and claims 5-11 have been added. No new matter has been added.

Applicants note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. No new matter has been added.

I. Objection to the Specification Under 37 C.F.R. § 1.71 and Rejection of Claims 1-4 Under 35 U.S.C. 112, first paragraph.

The Examiner has objected to the specification under 37 CFR § 1.71 because it does not describe a driving mechanism that drives the position determining unit and the cutting unit to approach the bottom portion of the fin material. In addition, for similar reasons, the Examiner has rejected the claims under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner indicates that it is unclear how the positioning determining unit and the cutting unit approach the bottom portion of the fin material.

In response to the above-noted objection to the specification and rejection of the claims, Applicants respectfully submit that a driving mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material is well known to those of ordinary skill in the art, and therefore, that such a mechanism does not need to be described in the specification. For example, the MPEP explicitly indicates that a “patent need not teach, and preferably omits, what is well known in the art” (see MPEP § 2164.01) (emphasis added).

Further, regarding the enablement issue, Applicants note that MPEP § 2164.01 explains that the “test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation” (emphasis added).

Thus, while the current specification may not include an explicit description of a driving mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material, Applicants are providing references (see the attached IDS) which demonstrate that a mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material was known to those in the art and was available to the public at the time of filing the instant application such that one of ordinary skill in the art could provide such a driving mechanism without undue experimentation.

For example, Applicants note that each of the following references includes disclosure which demonstrates that a driving mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material was known to those of ordinary skill in the art at the time of filing the instant application:

1. U.S. 4,480,456 (see Figs. 1 and 8);
2. U.S. 4,523,500 (see Figs. 4 and 5);
3. JP 4 -289017 (see Fig. 1);
4. JP 10 - 309620 (see Fig. 1);
5. JP 10 - 309621 (see Figs. 3-7); and
6. JP 2001-79711 (see Figs. 13, 5, 6 and 10).

Applicants respectfully submit that the above-noted references demonstrate that a mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material was well known to those of ordinary skill in the art at the time of filing the instant application. Accordingly, Applicants respectfully submit that the specification does

not require a description of such a mechanism, and that one of ordinary skill in the art would be able to make or use the invention based on disclosure in the specification coupled with information known in the art without undue experimentation.

Based on the foregoing, Applicants respectfully request that the objection to the specification be reconsidered and withdrawn, and submit that the rejection under 35 U.S.C. § 112, first paragraph for lack of enablement purposes is inapplicable to the claims of the present application.

If the Examiner disagrees and maintains the above noted objection and/or rejection, Applicants request that the Examiner provide a detailed explanation as to why it is believed that one of ordinary skill in the art would not be able to provide a driving mechanism capable of driving a positioning determining unit and a cutting unit to approach the bottom of a fin material based on the disclosure in the specification coupled with information known in the art without undue experimentation.

II. Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claim 2 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In order to facilitate the Examiner's reconsideration of the application, and to more clearly define the novel features of the present invention, original claims 1-4 have been canceled and are replaced with new claims 5-11. Applicants submit that each of the new claims has been drafted to ensure compliance with the requirements of 35 U.S.C. § 112, second paragraph.

III. Claim Rejections Under 35 U.S.C. § 102(b) and § 103(a)

Claims 1, 3 and 4 were rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama (4,523,500), and claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama (4,523,500) in view Nozaki (JP 5-23912).

Claims 1-4 have been canceled and are replaced with new claims 5-11 in order to further distinguish the present invention from the references applied by the examiner. Therefore, the above-mentioned rejections are submitted to be inapplicable to the new claims for at least the following reasons.

Claim 5 recites the features of a position determining unit capable of inserting a guide piece between adjacent shoulder portions of the corrugated fin material for determining the position of the bottom portion to be cut; and a cutting unit that is movable in a cutting direction under guidance of the guide piece to cut the bottom portion in a state where the guide piece is inserted between the adjacent shoulder portions of the conveying corrugated fin material. Applicants respectfully submit that Maruyama and Nazaki fail to disclose, suggest or otherwise render obvious such features.

Regarding Maruyama, Applicants note that this reference discloses a cutting device which includes a guide bar 102 for receiving a lower side face of a corrugated member 11, the guide bar 102 being arranged under a worm gear 101 (see col. 4, lines 30-32). The cutting device of Maruyama also includes a casing 105 of a carriage 104 which is slidably supported on a rail shaft 103 and pulled in a direction opposite to a direction (i.e., a conveying direction) of arrow A in Fig. 5 by a spring 106 (see col. 4 lines 37 - 40).

The cutting device of Maruyama also includes a cutter blade 113 and a cutter receiver 111, both of which extend outward through a slit 105a formed on the casing 105 (see col. 4, lines

59-61). As shown in Figs. 4 and 5 of Maruyama, the corrugated member 11 is passed through the space between the cutter receiver 111 and the cutter blade 113 on the outside of slit 105a, wherein the top end of the cutter blade 113 is gripped between the lower extensions 115b and 116b of the cutter receiver 111 (see col. 4, lines 61-64 and col. 5, lines 7-9).

In the Office Action, the Examiner indicates that casing 105 of Maruyama corresponds to a position determining unit and that the cutter blade 113 corresponds to the cutting unit (see Office Action at page 4).

As noted above, claim 5 recites the features of a position determining unit capable of inserting a guide piece between adjacent shoulder portions of the corrugated fin material; and a cutting unit that is movable in a cutting direction under guidance of the guide piece to cut the bottom portion in a state where the guide piece is inserted between the adjacent shoulder portions of the conveying corrugated fin material.

In view of the foregoing description of Maruyama, Applicants respectfully submit that the cutter blade 113 of Maruyama clearly does not move in a cutting direction under the guidance of a guide piece in a state where the guide piece is inserted between adjacent shoulder portions of the corrugated member 11. That is, in Maruyama, while the cutter blade 113 is able to move in an upward direction so as to cut the corrugated material 11, the cutter blade 113 does not move under the guidance of a guide piece that is inserted between adjacent shoulder portions of the corrugated material 11.

Accordingly, Applicants respectfully submit that Maruyama fails to disclose, suggest or otherwise render obvious all of the features recited in new claim 5. Further, Applicants respectfully submit that Nazaki fails to cure this deficiency of Maruyama. Applicants note that Nazaki was relied upon in the Office Action solely for the teaching of a pair of worms engaging

shoulders of a fin material.

In view of the foregoing, Applicants respectfully submit that Maruyama and Nazaki, either alone or in combination, fails to disclose, suggest or otherwise render obvious all of the features recited in claim 5. Accordingly, Applicants respectfully submit that claim 5 is patentable over the cited prior art, an indication of which is kindly requested.

Claims 6-9 depend from claim 5 and are therefore considered patentable at least by virtue of their dependency.

In addition, Applicants note that claim 6 recites that the cutting unit has a cutting blade moveable along the guide piece in the cutting direction. As noted above, Maruyama discloses a cutter blade 113 that is able to cut the corrugated member 11. Applicants respectfully submit, however, that the cutter blade 113 of Maruyama is not moveable along a guide piece in the cutting direction, as recited in claim 6. Further, Applicants respectfully submit that Nazaki fails to cure this deficiency of Maruyama. Accordingly, Applicants respectfully submit that claim 6 is patentable over the cited prior art, an indication of which is kindly requested.

Regarding claim 10, Applicants note that this claim recites the features of inserting a guide piece between adjacent shoulder portions of the corrugated fin material, and moving a cutting blade with the guide piece in a cutting direction under guidance of the guide piece to cut the bottom portion in a state where the guide piece is inserted between the adjacent shoulder portions.

For at least similar reasons as discussed above with respect to claim 5, Applicants respectfully submit that Maruyama and Nazaki, either alone or in combination, fail to disclose, suggest or otherwise render obvious such features. Accordingly, Applicants respectfully submit that claim 10 is patentable over the cited prior art, an indication of which is kindly requested.

Claim 11 depends from claim 10 and is therefore considered patentable at least by virtue of its dependency.

In addition, Applicants note that claim 11 recites that the cutting unit moves along the guide piece in the cutting direction. Accordingly, for at least similar reasons as discussed above with respect to claim 6, Applicants respectfully submit that the cited prior art fails to disclose, suggest or otherwise render obvious such a feature.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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